

**Requests for information  
on use of laser guns for detection of speeding  
made at the meeting of the Panel on Transport on 28 January 2008**

Differences between the manufacturer's manual and the internal training manual

- (a) *The Administration was requested to provide a copy of the internal training notes and a comparison table highlighting the differences between the manufacturer's manual (MM) of the laser gun (LG) and the internal training notes (TN) of the Traffic formation which, as stipulated in the Police statement on the accuracy of LGs tabled at the captioned meeting (the Statement), differed in some respects from the MM (the Chairman and Mr James TO).*

**Answer**

We have already provided a copy of the TN and the required comparison table to the Panel.

- (b) *As reported in the Statement, the Police Force was examining the discrepancies between the MM and the TN in depth and would seek expert opinion to ensure the best advice was provided to LG operators. The Administration was requested to advise on the time required for providing the advice and, pending its availability, the standards which the Force would adopt when taking enforcement actions in the interim. The Administration was also requested to explain how it would prepare for the likely increase in litigations challenging the accuracy of the LG so arising (Mr WONG Kwok-hing).*

**Answer**

All traffic formations use the MM when handling LGs and will continue to do so, as such enforcement standards will remain unchanged. To avoid any possible confusion, the TN was frozen on 2008-01-15.

A working group coordinated by Traffic Branch Headquarters is conducting a review as a matter of urgency. The review will be thorough, and the working group will implement the recommendations at the earliest possible opportunity.

A special team has been set up by the Police to handle public enquiries and complaints relating to speeding cases detected by LGs, and a dedicated line has been provided to the public. So far 334 written requests have been received. These cases will be examined and written responses to individuals will be made within two months in accordance with standard procedures.

The recent court case

(c) *In a recent court case (the recent case), the driver concerned had pleaded not guilty to the charge by engaging an expert from the United Kingdom to challenge the prosecution's case on the accuracy of the LG.*

(i) *the Administration was requested to provide a copy of the above expert report to the Panel (Mr James TO);*

**Answer**

It is understood that the clerk to the Transport Panel has written to the defence solicitor in the recent case, seeking a copy of the experts' reports. In addition, the DoJ has written to the defence solicitor conveying the Panel's request. A reply is awaited.

While the report was listed as one of the exhibits in the recent case, it was not referred to during the proceedings as the relevant witness has not been called upon.

(ii) *Dr. TAM Wing-yim of the Hong Kong University of Science and Technology was invited to provide written comments on the above report, and to advise whether and why the deviation in accuracy allegedly resulting from not following the MM in the recent case could justify a significant revision of the speed detected from 119 km/h to 79 km/h (Mr James TO); and*

**Answer**

Dr TAM is an independent expert. We have referred the Panel's request to Dr. TAM.

*(iii) The Administration was requested to advise whether before making the above revision decision it had consulted Dr. TAM, and considered the implications thereof on other case (Mr James TO).*

**Answer**

Dr. Tam was present in court for most of the proceedings in the case, and was consulted from time to time by the prosecuting counsel as the case progressed. Dr. Tam maintains that the laser guns used by the police, if properly used in accordance with the MM, provide an accurate means of assessing the speeds of vehicles.

If Members so wish, a copy of Dr Tam's Report relating to the recent case can be provided to the Panel for reference.

*(d) It was reported in the Administration's paper for this agenda item that in the recent case, the evidence given by the prosecution during cross-examination had failed to meet pre-trial expectations. The Administration was requested to provide further details in this regard, and on whether the relevant challenges were directed at the accuracy of the LG or at the enforcement procedures followed. The Administration was also requested to provide information on the speeding cases detected under the same circumstances including the number of such cases, whether similar enforcement procedures had been followed by other Traffic formations and if so, the irregularities, if any, so identified after reviewing the cases detected in this manner (Mr James TO).*

**Answer**

The main reasons why the Prosecution took the view the evidence given by the prosecution witness during cross-examination failed to meet pre-trial expectations are as follows:

- (1) Firstly, the police officer made a mistake about the offence location, i.e. where the defendant was caught speeding. The police officer produced a sketch indicating the location of the laser gun and the location where the defendant was caught speeding. However, during cross-examination, the defence could show that the location where the police officer alleged the defendant's car was caught speeding, i.e. the location as stated in the summons, was incorrect. Because of this, the Prosecution had difficulty proving the defendant's car was driving at 114 km/hr at the location alleged in the summons. This is the main reason why the Prosecution believed there was less than a reasonable chance to secure a conviction on the original summons.
- (2) Secondly, during the course of cross examination, the police officer was also asked about the tests performed on the laser gun. The police officer stressed all tests had been passed including the Fixed Distance/Zero Velocity Test and that the laser gun was functioning properly. However, under cross-examination, he also admitted that because of his negligence, he wrongly put down the test distance as 50 metres instead of 60 metres.
- (3) Further, under cross-examination, the defence produced a laser gun operation guideline issued by a certain police region, which required the police officer to perform the tests at the scene of operation in addition to the same tests performed at base. The requirement of performing the tests at the scene of operation was only mentioned in the guideline. This was not required by the manufacturer's user manual. However, the prosecuting expert assured the prosecuting counsel that passing the tests as required by the manufacturer's user manual was already sufficient to ensure the accuracy of the laser gun. Thus, performing the tests at the scene of the operation was not strictly necessary and had no bearing on the accuracy of laser gun at all.

In addition to Mr. LAM Kin-ngok's prosecution by summons, nine other drivers received Fixed Penalty Tickets for speeding during the same operation at the Lantau Link Toll Plaza on 2007-04-05. One of these nine has already approached Police and the case is being examined. The Police wrote to the other eight drivers on 2008-01-25 advising them that they were detected speeding in the same operation as Mr. LAM and invited them to approach the Police should they wish. So far none of the eight have replied to the Police. Should anyone do so, the case would be dealt with in accordance with established procedures.

All traffic formations follow the same procedures as stipulated in the MM when handling LGs. No enforcement irregularities have been identified.

- (e) *To clear up any confusion that might arise from the seeming contradiction between the Administration's claim that the accuracy of the LG was not in dispute, and the fact that the prosecuting counsel of the recent case subsequently amended the charge from travelling at 119 km/h to the lesser charge of travelling at 79 km/h, the Administration was requested to provide information on how it planned to revive public confidence in the LGs, and how it intended to handle the 139 written requests received for review of speeding cases in the wake of the recent case (Ms Miriam LAU).*

### **Answer**

The LG is accurate and reliable. The Police follow the MM in operating the laser gun as they take enforcement action to enhance the safety of all road users.

We appreciate that the public, in particular professional drivers' concern over the accuracy of the LG and the operating procedures arising from the recent court case. The proceedings did not put into doubt the accuracy of the LG. LGs are regularly serviced and maintained by the manufacturer's local agent and subject to regular calibration by an independent expert. A working group has been established to ensure that training and all procedures are consistent with the MM.

In February 2002, during testing, irregular data readings were discovered from 10 UltraLyte LGs. The Police immediately withdrew the 10 LGs from operational use. Following an upgrade of software by the manufacturer, and full scale tests by an independent expert the LGs were returned to operational use. This incident shows that the Police will not use LGs which are shown to be inaccurate.

A special team has been set up by the Police to handle public enquiries and complaints relating to speeding cases detected by LGs, and a dedicated line has been provided to the public. So far 334 written requests have been received. These cases will be examined and written responses to individuals will be made within two months in accordance with standard procedures.

#### Operation of LGs

- (f) *Mr LEUNG Kwok-hung was concerned about the operation of LGs and the resultant situations that a driver was mistakenly prosecuted as a result of the speeding offence committed by another driver. He therefore sought more details on operation of the LG including –*
- (i) *Whether the LG could at the same time detect the speed of more than one vehicle and if so, the time taken for detection of each vehicle and the relevant conditions required;*
  - (ii) *Whether the LG had to be directed at the licence plate to ensure that the speed of the vehicle concerned could be accurately detected and hence the reading considered valid; and*
  - (iii) *Whether to ensure accuracy the LG had to be operated at grade instead of at angles to the target. If measurement could be taken at angles to the target, what was the minimum requirement.*

## **Answer**

Information below is supplied by the Police : (i) According to the MM the time required for one speed measurement is 0.3 of a second. In principle the next speed measurement can follow immediately after the first measurement. (ii) The MM recommends the operator aims the instrument at the license plate area of the target vehicle. Dr TAM has advised that the front part of the target vehicle will suffice if the vehicle is moving towards the operator. (iii) The MM provides guidance on what is called the Cosine Effect. For operator safety, measurements are taken at an angle to the target vehicle. The Cosine Effect is in the motorists' favour.

- (g) *According to the Statement, when checking against a fixed object, a distance of 50 to 60 metres was considered acceptable when using the LG. Mr Albert CHAN however took the view that LG was often used to target vehicles 60 metres or more down the road, the Administration was requested to conduct a check of the some 200 000 speeding cases detected with the use of the LG in 2007, and report on the number of cases where the speed check was conducted at 60 metres or more down the road. Suspecting that cases so detected might be invalid, the Administration was also requested to advise whether it would consider dismissing the charge for such cases and for the equally dubious cases highlighted in (d) above, deducting the driving-offence points so incurred by the motorists concerned, and reimbursing these motorists of the fines which they were so required to pay (Mr Albert CHAN).*

## **Answer**

There maybe some misunderstanding. There is no relationship or correlation between the distance used in the LG Fixed Distance/Zero Velocity Test and the range (distance) between the LG and a speeding vehicle. If a LG passes the Fixed Distance/Zero Velocity Test it can be used and is accurate to detect speeding vehicles at any distance between 15 metres and 300 metres from the LG operator.

- (h) *The hand-held operation of the LG could lead to deviations in measurement and hence complaints and grievances. Having regard that in many overseas places LGs were operated with tripods instead of hand-held, the Administration was requested to explain why Hong Kong was still sticking to hand-held operation of the LG (Mr Albert CHAN).*

**Answer**

The MM does not require the use of a tripod when using the LG and this may not be practical in every circumstance. We should point out that whether hand held or mounted the accuracy of the LG remains the same.

Others

- (i) *The Administration was requested to provide details on the justifications which speeding offenders had used to overturn charges against them in the past three years, in particular cases where justifications were related to the accuracy of the LG or the enforcement procedures (Ms LI Fung-ying).*

**Answer**

Of the twelve acquittals for speeding between 2005 and 2007, ten were due to the court giving the benefit of doubt to the defendant, one was due to a misleading road sign and one was because the defendant was not formally identified in court. None of the acquittals related to the LG.

- (j) *It was noted that Police officers were given two days training on the use of the LG before they became qualified LG operators. The Administration was requested to provide information on how soon on average would a qualified LG operator be deployed after training to conduct anti-speeding operations, and whether such qualified LG operators would need to go through reassessment after a certain period of time (Ms LI Fung-ying).*



**Answer**

On successfully completing the LG training course an operator is qualified to operate the LG for speed enforcement operations. Due to the operator's frequent use of the LG and the relatively simple procedures involved, refresher training or re-assessment is not required. The two-day training not only covers the use of the LG but also related administrative practices and procedures.